Alberta INDUSTRIAL
NEWSLETTER

DEPARTMENT OF INDUSTRY AND DEVELOPMENT / Hon. A. R. PATRICK, Minister
INDUSTRIAL DEVELOPMENT BRANCH / R. MARTLAND, Director

- PIPE MILL OPENS
- INDUSTRIAL LIGHTING
- OPPORTUNITY IN CHIMNEYS
- TOWN OF REDCLIFF

VOL. 4, No. 4 EDMONTON, ALBERTA, CANADA OCTOBER, 1960

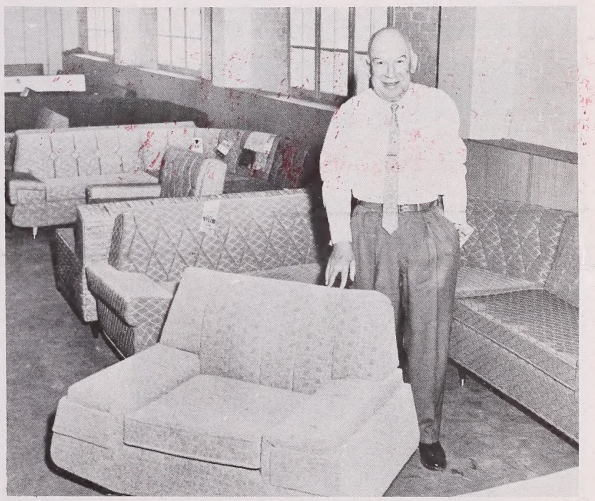
UPHOLSTERED FURNITURE OFFERED IN FIFTY DESIGNS

Chesterfield suites and davenports in 50 different designs are produced by a new Calgary manufacturer —Murray Manufacturing Ltd. Prior to establishing in Calgary early in 1959, the principals operated in Winnipeg for seven years.

Murray products are built on an assembly line basis at the firm's fire-proofed building at 322-11 Ave. S.W. Frames fashioned from western hardwoods are constructed first, and arms are built and covered in a separate operation. After springs are put into place and primary covering installed, the piece of furniture passes to the upholstery department where the main cover is attached.

The firm uses about 40 different quality fabrics. Nylon is most popular although some acetate and cotton yarn is also used. Patterns for the various styles of chesterfields, davenports and chairs are all recorded on rolls of paper with small punched holes marking the outline. When a certain design is required the paper is spread over the fabric and chalk sprayed over the pattern. An electric knife can cut a pattern recorded by the chalk mark through as many as 40 thicknesses of material at one time.

When a complete pattern has been cut, all composite parts are sorted and sewn as required. Special designs on the backs of furniture are accomplished by a process using steel lasts, an adhesive, foam backing and a hot iron.



H. T. Murray of Murray Manufacturing Ltd., stands with several pieces of upholstered furniture manufactured by the Calgary firm.

The Calgary firm employs an average of 35 persons. All furniture is marketed through a dealer organization of some 85 outlets in British Columbia, Alberta, Saskatchewan and Manitoba.

NEW PIPE MILL BOASTS THREE PRODUCTION "FIRSTS"

Three major technical advances in the manufacture of steel pipe have been incorporated into the production techniques of the Big Inch Pipe Mill in Calgary. Premier E. C. Manning officially opened the mill on June 29, 1960.

The three "world-first" developments include the continuous formation of each length of pipe; production of pipe in sizes 18 inches outside diameter to 36 inches outside diameter in lengths up to 62 feet without girth welds, and the welding of a longitudinal seam by means of a new radio frequency electric resistance welding process.

The Big Inch Pipe Corporation's new 65,000-square-foot plant, built at a cost of $4,000,000, is capable of turning out 180,000 to 200,000 tons of pipe per year, valued at between $50,000,000 and $60,000,000. An eight-hour shift will produce over one mile of pipe. Operating at full capacity the plant will employ approximately 150 persons with an annual payroll of close to $500,000.

Steel skelp is the major raw material, and is purchased in Saskatchewan, Ontario and outside Canada.

An overhead crane and powered winch are used to transport the steel plate to a roll conveyor which feeds it into a rotary side trimmer. The steel is then automatically fed through seven forming rolls, becoming cylindrical in shape and ready for the welding process.

Among the mill's unique features is the high frequency resistance welding equipment, first of its type to be used in the forming of large diameter pipe. Ordinarily, pipe is welded by a low frequency submerged arc method which entails tack welding, followed by inside and outside seam welding. The Big Inch process involves only one welding pass.

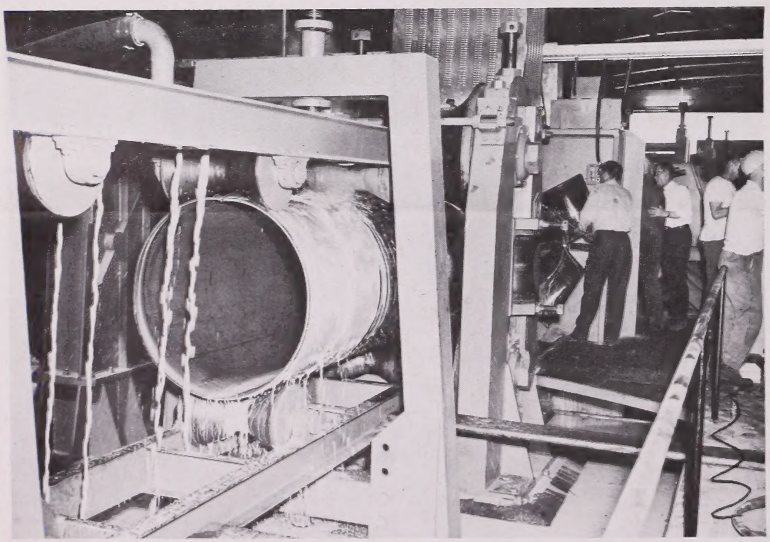
The high frequency current follows a low inductance path with the edges of the longitudinal seam brought up to a molten temperature before the point of the weld. The heat affected zone is narrow, and a uniform welding temperature is maintained throughout the cross-section of the weld. At the point of weld, all oxide coating, scale and segregated steel are squeezed out of the weld zone, eliminating the need for precleaning the surface.

Depending on plate thicknesses, pipe can be welded at the rate of from 25 feet to 75 feet per minute.

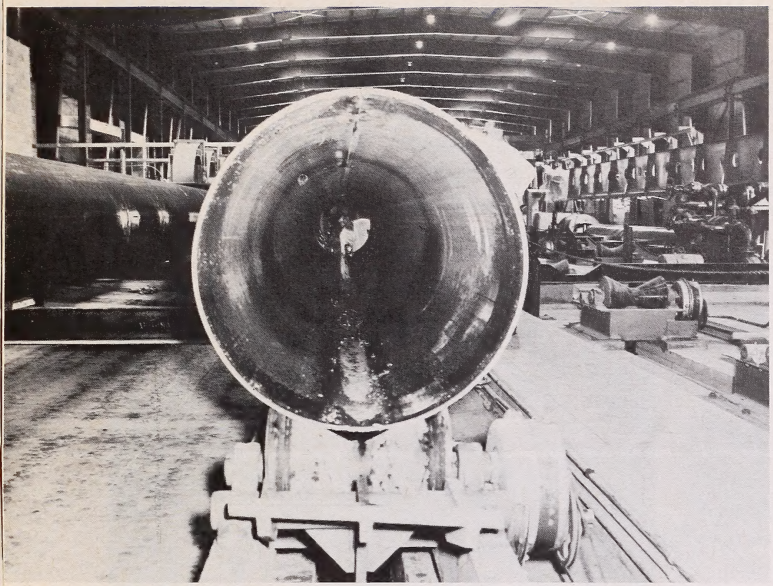
Carbide tools are used to scarf flush the inside and outside of the weld, thus maintaining uniform thickness. Following the scarfing, the pipe passes through an induction annealing unit where the weld and adjacent metal is induction heated to eliminate any substantial difference in hardness across the weld area. This is followed by quenching.

Pipe is then sized and inspected for weld and other defects. Other operations include straightening, end-cropping, another inspection, expansion to exact diameter, and end bevelling. Pipe is conveyed to a hydrostatic tester where the pipe is filled with water and test pressure of 1,140 pounds per square inch applied. While under high pressure the pipe is struck several times with mechanical hammers and vibration is recorded.

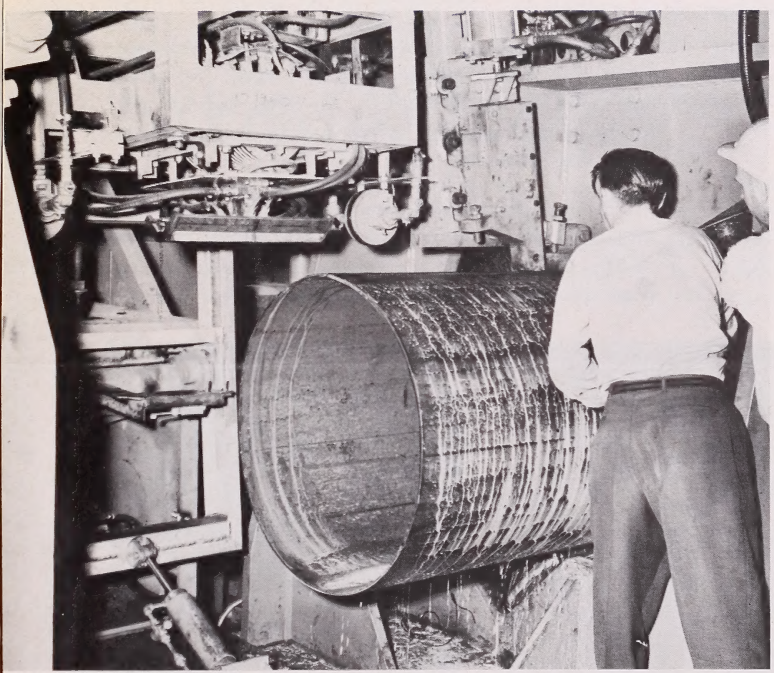
After a final inspection, pipe is weighed, stencilled and shipped or stockpiled for shipment.



Large-diameter pipe passes through an oil-bath cooling system after being formed and welded.



A Big Inch employee examines a finished section of pipe for possible defects.



Shown is the new radio frequency electric resistance welding section of the plant's continuous formation line.

Edmonton Firm Remanufactures Diesel Engines

The remanufacture of diesel engine heads to a standard considered comparable to a new cylinder head has enabled Oilfield Specialty Welding Ltd. of Edmonton to expand from a small company employing three persons in 1957 to its new quarters in South Edmonton employing a staff of eighteen.

The $50,000 cement block building located at 5610-103A Street contains the latest equipment for diesel cylinder head rebuilding, including a recently acquired radial drill valued at $10,500. The special alloy weld material used to restore the valve seat in the diesel engine head is fabricated to the company's specifications in the United States. The welding alloy must be of a high quality to withstand the heat and pressure to which it would be subjected. The welded head is restored to the same as original specifications.

All equipment used at the plant was obtained in Canada, some of it specially constructed by company machinists.

The company rebuilds over 3,000 diesel heads annually, varying in size from small traction engines to large diesel power plants.

Early in 1960 the company commenced operations at its new remanufacturing plant in Calgary. Oilfield Specialty Welding Ltd. is a wholly Alberta-owned company with headquarters in Edmonton, branch in Calgary and agency offices in Saskatchewan and Manitoba.

The annual payroll totals $80,000 and gross sales approximate $225,000 yearly.

Authorized as Second Class Mail, Post Office Department, Ottawa.

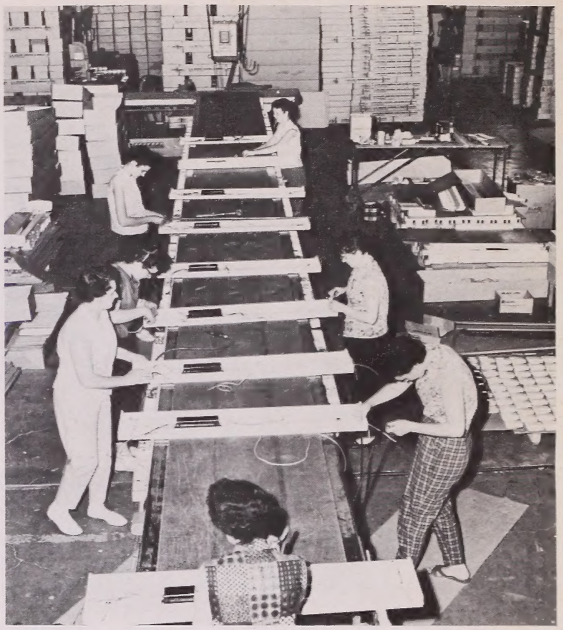
Eastern Lighting Firm Locates $200,000 Plant In Southern Alberta

A newcomer to the Alberta industrial scene is J. A. Wilson Lighting & Display Limited of Toronto. This all-Canadian firm marked its 50th anniversary recently by opening a branch plant at Medicine Hat to produce a range of commercial and industrial lighting fixtures for their Western Canada market.

Operating at full capacity, the new Medicine Hat plant will employ upwards of 50 persons with an annual payroll in excess of $150,000. The lighting firm started production last March in a 19,000 square-foot building near the Medicine Hat airport. Equipment is valued at $200,000.

Sheet steel which is bought in strips or exact sheared sizes is run through progressive dies on punch presses. Component steel parts of fluorescent lighting fixtures are punched in forty- and sixty-ton open back inclinable presses, while large parts such as reflectors and bodies are formed on a 90-ton brake press.

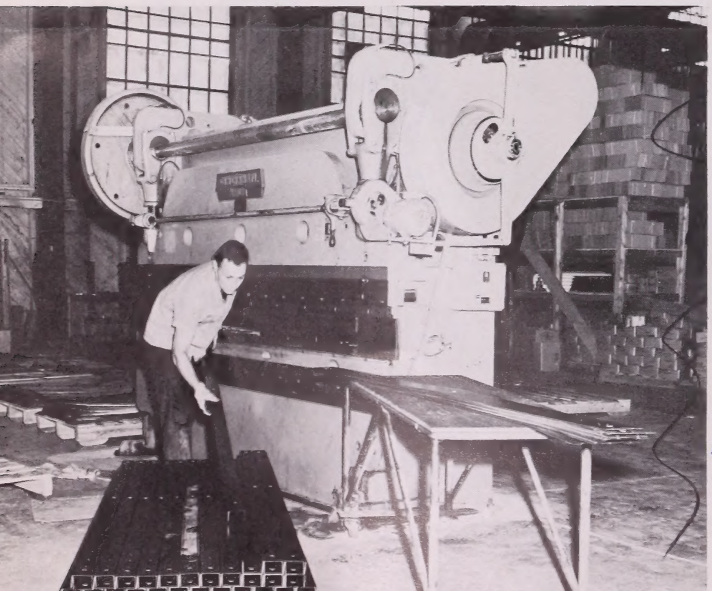
All component parts are welded together and the unit is chemically cleaned in a de-greasing operation. An overhead conveyor system takes the fabricated parts through an automatic paint booth and a double pass 10-minute baking process.



All component parts of lighting fixtures are assembled in this operation.

Component parts next pass to the assembly conveyor line where ballast, sockets, wiring, end plates and reflectors are assembled. All units undergo performance and quality testing before being packed, ready for shipment.

At the present time the plant is producing five distinct fixture lines at Medicine Hat. Other products of the parent plant at Toronto are stocked at the plant for Western Canada distribution.



Light reflectors and bodies are formed or punched from sheet steel on this 90-ton brake press.

Fixtures are painted in an automatic pass paint booth, and touched up before entering the drying process.

WOOD PRODUCTS ARE MANUFACTURED BY NEW COMPANY

A variety of unfinished and finished furniture is being produced in Jasper Place by the I and W Mfg. Ltd., of 10027-168 Street. The firm, which has been in operation since April, also builds a line of plywood boats and wooden toys.

I and W Mfg., was formed by Edmontonian Stan Ingham in association with Mr. Ed Werre, production manager who has 30 years of experience in the furniture business, to produce furniture to suit the "finish-it-yourself" market in Alberta, Saskatchewan and British Columbia. Finished furniture is made in the low-to-middle price range.

Plywoods are extensively used in the plant's manufacturing program; also spruce, poplar, maple, mahogany, ash and birch lumber. The company will be operating with an average of 12 employees and an annual payroll of approximately $30,000. Most raw materials are purchased locally. The firm expects to use plywood and lumber valued at approximately $45,000 each year, about $24,000 worth of hardware and legs, and paints and varnishes valued at $5,000. Capital cost of land, equipment and buildings was $35,000.

I and W's furniture line includes complete bedroom suites, wardrobes, desks, bookshelves, clothes dryers, kindergarten sets and lawn furniture.

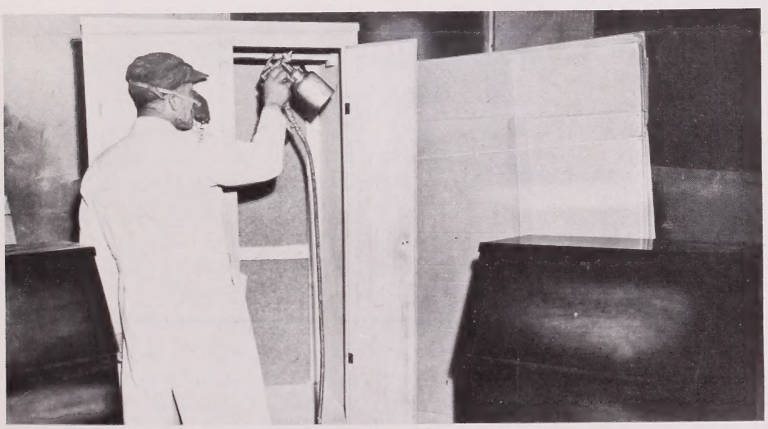
A workman checks mouldings of a chest of drawers which will form part of a bedroom suite.

In addition to the company's regular line of merchandise, I and W Mfg. Ltd., caters to the market of custom furniture, offices, counters, cabinets, etc. Anyone with a problem in wood, should contact the firm as all research is done at the company's expense.

Boats produced by the firm are also in the comparative low-priced field. Two models have had capacity and power ratings approved jointly by the Canadian Boating Federation, and the Federal Department of Transport. Blueprints of other models will also be submitted for approval. The ratings are found on metal plates attached to 10 and 12 foot models.

The new company's wooden toy line is not yet completely developed but is slated to include such children's items as rocking chairs. Company officials expect to feature these at smaller urban and rural stores where quantity purchases will not govern availability of goods.

Products are marketed through furniture departments of two of the larger department stores, and through independent dealers in Alberta and British Columbia.



Ed Werre, manager of the new furniture plant is shown spray painting a clothes closet. Desks built by the firm are also shown.

ALBERTA INDUSTRIAL OPPORTUNITIES

METAL CHIMNEYS

During the past four or five years, the metal chimney has largely replaced the conventional brick or concrete block chimney in residential construction where flue temperatures of gas burning appliances do not exceed 1,000°F. Today, with exception of some custom built homes, the metal chimney is commonly used.

There are two types of metal chimneys designed for different flue temperatures; those not exceeding 550°F. and those not exceeding 1,000°F. Usually the chimney consists of a steel liner surrounded by a layer of glass fibre or rockwool insulation which is held in place by an heavy guage galvanized steel casing. In some types of construction, a dead air space insulation is used. The metal chimney is made in sections of varying lengths which couple together.

The wide acceptance of the metal chimney is due to the fact that a metal chimney has many advantages over a brick or concrete chimney. The metal chimney requires less labour for installation, takes up less space, is extremely durable and if properly sized, eliminates condensation and ensures a strong draft.

Since at present there are no metal chimney manufacturers in Alberta, metal chimney manufacturers in British Columbia, Manitoba and Ontario have been supplying Alberta's needs.

An indication of the size of the market for metal chimneys is provided by building permit statistics. In 1959, building permits were issued for 10,853 single dwellings, 886 double dwellings and 1,797 apartment buildings in the province.

A local manufacturer would be required to have his prefabricated metal chimney approved by a recognized testing laboratory such as the Underwriters Laboratories of Canada.

Technical Assistance Available

The Technical Information Service of the Research Council of Alberta has been established to assist industry solve their technical problems and to provide free of charge, latest technical and scientific information. In addition to handling specific inquiries, the Service has prepared a number of reports on various subjects and these are available at no cost from Technical Information Service, Research Council of Alberta, 87 Avenue and 114 Street, Edmonton, Alberta.

A number of T.I.S. reports are listed below and additional numbers will appear in succeeding issues of the Industrial Newsletter.

Report No. 21—"Manufacture of Concrete Building Units"
No. 36—"Mechanical Maintenance of Plant Equipment"
No. 57—"Time and Motion Study in the Construction Industry". A Selected Annotated Bibliography

Information Note No. 1-55—"Thawing Frozen Water Pipes"
No. 41-56—"Floor Cleaning"
No. 63-57—"Foundry Core Making with CO_2"

P.N. No. 14—"Painting and Decorating Costs"
No. 15—"Cost Estimating for Wood Industries"
No. 45—"Wood Particle Board"

Research organizations of the Department of Industry and Development will attempt to secure additional information on any of the topics mentioned in this section on behalf of interested parties. Inquiries should be directed to Richard Martland, Director, Industrial Development Branch, Department of Industry and Development, Edmonton.

TOWN OF REDCLIFF

Location: Section 8-13-6-W4, six miles northwest of Medicine Hat on the Trans-Canada Highway, and CPR main line.

Altitude: 2,443 feet.

Temperature: Mean summer, 62 degrees F.; mean winter, 27.5 degrees F.; mean yearly average, 42 degrees F.

Rainfall: Average yearly rainfall, 11.44 inches; average yearly snowfall, 35.6 inches; average annual precipitation, 15 inches.

Geology: The bedrock underlying glacial deposits is the Belly River formation of the Upper Cretaceous period. Dinosaur beds and coal seams are found.

Soil: Redcliff is in the brown soil zone with short-grass prairie as chief vegetation. Moisture is the principal governing factor in crop production. Soils are relatively low in nitrogen but under irrigation respond to phosphorus fertilizer. Where farmed, wheat is the principal crop grown. Cropping practices must provide for moisture conservation and soil drifting control. The long frost free period makes this zone a desirable area for development of irrigation.

History: Redcliff, which derived its name from the red banks of the South Saskatchewan River, was a booming industrial centre from 1910 to 1914, with a manufacturing complex which included a motor car manufacturing plant, brick manufacturers, two glass plants, rolling mill and bolt company, hat and cap company, as well as steel, furniture, shoes, gloves, cigar and cabinet plants. Many of the firms were forced to close during the manpower shortage of the First World War.

Today, three brickyards, one glass company and several greenhouses are in operation. The community was incorporated as a village in 1910, and a town in 1912. Water and gas were installed in 1912.

Living Conditions: The town, with wide gravelled streets and cement sidewalks, is situated on flat terrain above the South Saskatchewan River. Homes are well-lawned. Modern schools offer instruction in all grades, and four churches serve the spiritual needs of the community.

Administration: The town is governed by a mayor elected for a two-year term, and six councillors, two of which are elected each year for a three-year term. The secretary-treasurer administers the affairs of the town in accordance with policy set by the council.

Law Enforcement: The town has its own police force of one chief and one constable. The National Building Code is used and electrical and sanitary installations must comply with provincial regulations.

Fire Protection: A volunteer fire brigade of 15 men and a chief has at its disposal adequate equipment to provide efficient fire protection.

Tax Structure: The mill rate is 54 mills based on 12.3 municipal; 34 school, and 7.7 hospital. Total assessment is $2,621,334 made up of $304,740, land based on 100 percent value; $1,792,270, improvements, 60 percent of fair value; and $524,324, business.

Areas: Total area of town, 2,410 acres; street and roads, 164 acres; and parks and playgrounds, 20 acres. There are 32.5 miles of roads, streets and lanes, and approximately eight miles of cement sidewalks. Water mains total 14 miles and there are four miles of storm sewers.

Power: Three phase 60-cycle power is supplied under a franchise by the City of Medicine Hat power department. Rate structure for residential and commercial users is available on request.

Water: Is obtained from the South Saskatchewan River and is filtered and pumped into a 330,000-U.S. gallon elevated water tower. A flat rate of $3.00 per month is charged; with a special industrial rate of 25c per 1,000 gallons.

Natural Gas: Is supplied under a franchise by the Canadian Western Power and Fuel Company. Residential rate is 25 cents per Mcf; over 100,000 Mcf used per month, 20 cents per Mcf. A special industrial rate is available.

Fuel: L.P. gas is available in bulk and 100 pound cylinders. Diesel fuel is also available.

Resources: Wheat, coarse grains, horses, cattle, sheep, hogs, dairy products, vegetables, coal, sand and gravel, natural gas.

Government Offices: Federal—post office; Provincial—Alberta Government Telephones, Treasury Branch; Municipal—Town office, council chamber, secretary-treasurer, works foreman, police department, fire department.

Health Services: Redcliff is in the Medicine Hat Hospital District. Staff of the Medicine Hat Health Unit make weekly calls inspecting children. There is one doctor, and one drug store.

Professional Services: Two barbers, one beauty parlor.

Transportation: Canadian Pacific Railway main line; Greyhound Bus service main line east and west; local bus service to and from Medicine Hat; truck cartage.

Communication: Telephone and telegraph, post office. Radio and television from Medicine Hat.

Financial Facilities: Imperial Bank of Canada, Treasury Branch, Redcliff Savings and Credit Union.

Hotels: 23-room Redcliff.

Churches: Anglican, Roman Catholic, United, Nazarene.

Fraternal Organizations: Masonic, Oddfellows, Eastern Star, Rebekahs.

Service Clubs: Chamber of Commerce, Canadian Legion, Women's Auxiliary to the Canadian Legion.

Societies and Associations: Senior Citizens, Canadian Club.

Education: There are two modern schools which offer instruction in Grades one to nine. Students attending Grades ten to twelve are taken to Medicine Hat schools. Redcliff has 17 teachers and approximately 450 students.

Theatres and Halls: There is a theatre, a civic centre, a Legion hall and two school auditoria.

Youth Activities: Boys—Army Cadets, Boy Scouts, Cubs; Girls—Girl Guides, Brownies.

Sports: Facilities include an open air skating rink, swimming pool, baseball diamond, soccer fields, playgrounds.

Co-operatives: Redcliff Savings and Credit Union.

Trading Areas: North, nine miles; west, 67 miles; south, three miles, and east, two miles.

Population: Town population 1956 census, 2,001; town population, June 1959, estimated at 2,055. Trading area population 5,195.

Industrial Development: Three brick yards, a glass factory, a pottery and three greenhouses make up Redcliff's industrial complex. The community serves a ranching and wheat producing area north and west. Farms average 3,780 acres. Fully serviced residential sites are available at reasonable prices. Industrial sites on trackage or on the Trans-Canada highway are available from the town.

For further information about Redcliff

write

SECRETARY-TREASURER
TOWN OF REDCLIFF
REDCLIFF, ALBERTA

or

R. MARTLAND

Director of Industrial Development
Department of Industry and Development
Administration Building
Edmonton, Alberta